

Sun to Build Korean RFID Test Center

The software company is partnering with Busan National University in developing a center to serve end users in manufacturing and logistics industries.

By Mary Catherine O'Connor

Mar. 29, 2005—Santa Clara, Calif.-based RFID software developer [Sun Microsystems](#) is developing an RFID Test Center in Busan, South Korea's second-largest city, in collaboration with [Busan National University](#). Sun chose the university as a partner partly because its curriculum has a manufacturing focus, which could help attract local manufacturing companies to the test center. Also, some of its students and professors are studying RFID. "The university has an interest in RFID and sees it as an important emerging technology. And it's important to have a partner with local knowledge," says Sam Liu, director of Sun's RFID product management.

Set to open in stages but with an initial debut this summer, the center will consist of a fully functional simulated warehouse for testing passive UHF tags, UHF readers and RFID-enabled portals, conveyor belt systems and forklift operations—similar in setup to its Dallas RFID test center. Liu says the Busan center will be more than twice the size of the 17,000 square-foot facility in Dallas.

The Korean center, being designed for end users of RFID, will also offer services such as readability testing of RFID tags, warehouse inventory process simulations, and research and development services for RFID systems. Sun says customers of the center will likely come from a wide variety of industries, but mainly manufacturing, logistics/transportation and retail. The key use of the center will be real-world testing of RFID tags and readers. Sun will provide its Java-based RFID software architecture for customers of the center to conduct tests, and it will also lend its IT expertise to the development of the center. Liu says Sun has not yet determined which RFID hardware vendors will provide the tags and readers used in the center, but it hopes to include items from Asian vendors, such as Omron, in order to integrate the center with Asia's RFID industry. The center's staff will be made up both of Sun staff and staff from Busan National University.

The test center will also include a large outdoor simulated port for testing cargo and logistics applications of active RFID technology for tracking and tracing shipping containers. The opening date and configuration of the outdoor testing area has not yet been determined, but it will not likely be part of the initial opening this summer. Initially, the outdoor part of the center will not have water access and will focus on securing and tracking trucking-based containers. But Sun hopes to extend the center to an actual port at a later, undetermined date.

Because Busan (also known as Pusan) is one of the major shipping ports in Asia, Sun expects that the members of the Korean shipping industry will be very interested in using the outdoor testing facility to learn about the technology. The [Port of Busan](#) has already shown interest in RFID and how it can be used to make the Busan port more efficient and secure and therefore more attractive as a destination for shippers (see [Korean Seaport Tests RFID Tracking](#)). Liu says the Port of Busan is one of the center's target customers for the outdoor testing facility.

All of the services at the RFID center will be fee-based, as the goal, both from Sun's and the university's perspectives, is to have the center generate enough revenue to become economically self-sustaining.

Liu, who just returned to Sun's Santa Clara headquarters from Asia, says there is significantly more RFID development in Korea this year than during past years. One reason, he says, is that as a major global manufacturing center, many manufacturers operating there are currently under or soon will be under RFID mandates from major retailers in Europe and the U.S. "Korea is being impacted by Wal-Mart's and other mandates because it produces so many goods that are sold in [their] stores," he says, adding that Taiwan is being affected in the same way.

Liu says across Asia, governments also recognize the potential positive impact the technology could have on local economies and are therefore supporting the growth of Asian RFID hardware and software vendors. He says that many Asian academic institutions, including Busan National University, act as a "bridge between the public and private sectors," by becoming involved in projects where technologies are developed for commercial applications. U.S. universities are not as involved in these types of projects and play a less significant role in the private sector, says Liu. Sun hopes, he says, that the work to be done at the test center will foster collaboration across education and business sectors in Korea, leading to initiatives using RFID that benefit both sectors. "For example, some of the research and development that will happen at the center could be turned into commercialized products," he says.

Sun says it's also in early development of an RFID pilot project for the Busan National University, but the details of that pilot will not be determined until after the center is operational. Sun is partnering with Neptune Orient Lines and APL Logistics to develop an RFID test center in Singapore for compliance testing and tagging service, but the opening date for that center is still to be determined, says Liu. Sun also is considering developing a number of similar centers around the world, including Scotland. Each center is designed to help the local end users develop RFID applications that meet their specific business needs, he says.

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